

Claims

[1] In a shift control device for a straddle-type vehicle for performing shift control in which a shift actuator is stroked by a predetermined amount to rotate a shift shaft,

an actuation force transmission mechanism comprising:

a first coupling part and a second coupling part coupled for relative movement in linear directions;

an urging means for urging the first and second coupling parts toward a neutral position; and

a stopper mechanism for stopping the relative movement of the first or second coupling part when the first or second coupling part is moved relatively from the neutral position against urging force of the urging means,

wherein the actuation force transmission mechanism is interposed between the shift actuator and the shift shaft.

[2] The actuation force transmission mechanism according to Claim 1, wherein the actuation force transmission mechanism is arranged such that, when resistive force acts against movement of the actuation force transmission mechanism:

the first or second coupling part moves relatively against the urging force of the urging means until the first or second coupling part is stopped by the stopper mechanism; and

then the first and second coupling parts move together.

[3] The actuation force transmission mechanism according to Claim 1, wherein the first coupling part and the second coupling part are constituted of a rod and a cylindrical member for accommodating a part of the rod.

[4] The actuation force transmission mechanism according to Claim 3, wherein:

the urging means includes a coil spring; and

the urging means is disposed between the rod and the cylindrical member.

[5] The actuation force transmission mechanism according to Claim 4, wherein:

the rod has portions of different diameters; and
a portion of a large diameter is used as a part contacted by the spring.

[6] The actuation force transmission mechanism according to Claim 3, wherein:

the cylindrical member has a step on its inner surface;
and
the step is used as a part of the stopper mechanism.

[7] The actuation force transmission mechanism according to Claim 3, wherein the cylindrical member is constituted with plural members having inner and outer surfaces.

[8] The actuation force transmission mechanism according to Claim 7, wherein the cylindrical member includes plural cylindrical members.

[9] The actuation force transmission mechanism according to Claim 1, wherein the first coupling part and the second coupling part are arranged such that their distal ends overlap each other in linear directions.

[10] The actuation force transmission mechanism according to Claim 1, wherein the shift actuator is coupled to the shift shaft via a coupling rod, and the actuation force transmission mechanism is disposed at an intermediate portion of the coupling rod.

[11] The actuation force transmission mechanism according to Claim 10, wherein the actuation force transmission mechanism is provided in a case held by the coupling rod.

[12] The actuation force transmission mechanism according to Claim 1, wherein the actuation force transmission mechanism is disposed outside an engine case.

[13] A straddle-type vehicle incorporating the actuation force transmission mechanism according to any one of Claims 1 to 12.